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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,280	01/21/2004	Akihiro Kimura	03500.017840.	9839
5514	7590	12/15/2006	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			RAABE, CHRISTOPHER M	
			ART UNIT	PAPER NUMBER
			2879	

DATE MAILED: 12/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/760,280

Applicant(s)

KIMURA ET AL.

Examiner

Christopher M. Raabe

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5 and 6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5 and 6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 11/30/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 22, 2006 has been entered.

2. Applicant's arguments filed November 22, 2006 have been fully considered but they are not persuasive.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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4. Claims 1,3,5,6 are rejected under 35 U.S.C. 103(a) as being obvious over Sato (USPN 2001/0039161), in view of Suzuki (USPN 6638128).

With regard to claim 1,

Sato discloses an energization processing apparatus for performing, in a reduced-pressure atmosphere, an energization process on electric conductors which are placed on a substrate, comprising: a vessel which has an exhaust hole and which covers the electric conductors and one region on a surface of the substrate where the electric conductors are placed, to create an airtight atmosphere between the substrate and the vessel, wherein the vessel does not cover a further region on the surface of the substrate (302,106,101 of fig 3; and fig 1); a first temperature adjusting mechanism for generating a heat quantity to adjust a temperature of the one region (311, 312 of fig 3); and a second temperature adjusting mechanism for generating a heat quantity to adjust a temperature of another region (other 311,312 of fig 3). The phrase “wherein the heat quantity generated by the first temperature adjusting mechanism is different from the heat quantity generated by the second temperature adjusting mechanism” does not structurally distinguish the claimed invention from the prior art, as is required of apparatus claims (MPEP 2114)

Sato does not disclose the second temperature adjusting mechanism for adjusting the temperature of the further region.

Suzuki does disclose a second temperature adjusting mechanism for adjusting a temperature of a further region of a substrate where there is a first temperature adjusting mechanism for adjusting a temperature of a first region of the substrate (column 25, line 50 – column 26, line 10), providing an even temperature distribution across the substrate.

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It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the configuration of Suzuki into the apparatus of Sato in order to provide an even temperature distribution across the substrate.

With regard to claim 3,

Sato discloses an energization processing method for performing, in a reduced-pressure atmosphere, an energization process on electric conductors which are placed on a substrate, comprising the steps of: covering the electric conductors and one region on a surface of the substrate where the electric conductors are placed with a vessel which has an exhaust hole to create an airtight atmosphere between the substrate and the vessel, wherein the vessel does not cover a further region on the surface of the substrate (302 of fig 3, and fig 1); reducing a pressure of the airtight atmosphere (paragraph 108).

Sato does not disclose heating the one region with a smaller heat quantity while heating the further region with a larger heat quantity.

Suzuki does disclose (implicitly) heating another region on the surface of a substrate not covered with a vessel with a heat quantity larger than a heat quantity for heating one region on the surface of the substrate covered with the vessel (column 25, line 50 – column 26, line 10: note in particular lines 58-67 of column 25), providing an even temperature distribution across the substrate, thus suppressing a temperature difference between the one region and the further region.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the configuration of Suzuki into the apparatus of Sato in order to provide an even temperature distribution across the substrate.

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With regard to claim 5,

Sato discloses the energization processing apparatus according to claim 1.

Sato does not disclose the first temperature adjusting mechanism having a first thermal conducting member touching a surface of the substrate just opposite the one region, while the second temperature adjusting mechanism has a second thermal conducting member touching a surface of the substrate just opposite the further region.

Suzuki does disclose the first temperature adjusting mechanism having a first thermal conducting member touching a surface of the substrate just opposite the one region, while the second temperature adjusting mechanism having a second thermal conducting member touching a surface of the substrate just opposite the further region (column 25, line 50 – column 26, line 10 and 102,103 of fig 28), providing an even temperature distribution across the substrate.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the configuration of Suzuki into the apparatus of Sato in order to provide an even temperature distribution across the substrate.

With regard to claim 6,

Sato discloses the energization processing apparatus according to claim 1.

Sato does not disclose the second temperature adjusting mechanism to be capable of thermal generation larger than that of the first temperature adjusting mechanism, to suppress a temperature difference between the one region and the further region.

Suzuki does disclose the second temperature adjusting mechanism to be capable of thermal generation larger than that of the first temperature adjusting mechanism, to suppress a temperature difference between the one region and the further region (column 25, line 50 –

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column 26, line 10: note in particular lines 58-67 of column 25), providing an even temperature distribution across the substrate.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the configuration of Suzuki into the apparatus of Sato in order to provide an even temperature distribution across the substrate.

Response to Arguments

5. While the applicant argues that the prior art does not disclose an apparatus having a first temperature adjusting mechanism opposite a one region (the region where the energization process takes place, causing the temperature to rise) and a second temperature adjusting mechanism opposite a further region (the remainder of the substrate), the second temperature adjusting mechanism generating a heat quantity greater than that generated by the first temperature adjusting mechanism (thereby eliminating the temperature differential across the substrate that would otherwise be created by the energization process), the examiner asserts that this is disclosed by the Suzuki reference in columns 25 and 26 (see also figure 28). In the columns, Suzuki discloses a first temperature adjusting mechanism opposite a one region (Z201-x, Z202-x opposite a region where a heat-generating energization process, referred to as activation, takes place) and a second temperature adjusting mechanism opposite a further region (Z201-y, Z202-y opposite the remainder of the substrate). These first and second temperature adjusting mechanism are each controlled by a temperature controller to "eliminate the generated temperature distribution[.]" In order for the temperature distribution generated by the activation process to be eliminated, the heat quantity generated by the second temperature adjusting mechanism must be greater than that generated by the first temperature adjusting mechanism.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M. Raabe whose telephone number is 571-272-8434. The examiner can normally be reached on m-f 7am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CR


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